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10/653,302

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Su-Huei Jeng

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EXAMINER

DAVIS, ZACHARY A

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/653,302

Applicant(s)

JENG ET AL.

Examiner

Zachary A. Davis

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. A response was received on 29 June 2007. By this response, no claims have been amended, added, or canceled. Claims 1-16 are currently pending in the present application.

Response to Arguments

2. Applicant's arguments filed 29 June 2007 have been fully considered but they are not persuasive.

Regarding the rejection of Claims 1-16 under 35 U.S.C. 102(e) as anticipated by Symons et al, US Patent Application Publication 2003/0105881, Applicant first alleges that there is a "fundamental distinction" between the cited art and the claims (pages 7-9 of the present response). First, the Examiner notes that in this portion of Applicant's arguments, no citations of evidence in support of the various statements made therein are provided whatsoever. Further, in response to applicant's argument that the references fail to show certain features of applicant's invention (see page 9 of the present response), it is noted that the features upon which applicant relies (i.e., to "assign at least two MAC addresses to every port of a network device" and that an embodiment "issues warning messages to users and to administrators to terminate the detection procedure") are not recited in the rejected claim(s). Although the claims are

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interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

More specifically regarding independent Claims 1, 7, and 12, Applicant further argues that the cited portions of Symons do not disclose the claimed subtracting step (or device processing unit that performs a subtracting step), whereby at least one unauthorized MAC address is obtained (see pages 10-11 and 13 of the present response). However, the Examiner respectfully disagrees. The Examiner believes that the cited portion of Symons discloses finding the difference between network topologies (where subtraction also results in a difference) that also results in detection of unauthorized (or reconfigured) devices (see Symons, particularly paragraph 0066).

Regarding dependent Claims 2, 3, 8, 9, 13, and 14, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. In particular, the arguments regarding those claims (pages 11-12 and 13-14 of the present response) do not cite any evidence in support of the allegations therein.

Therefore, for the reasons detailed above, the Examiner maintains the rejections as set forth below.

Specification

3. The disclosure is objected to because of the following informalities:

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The specification contains minor typographical and other errors. For example, the first sentence of the Abstract is a fragment. On page 2, line 28, it appears that "it" is intended to read "they" (where this appears to refer back to the MAC address and IP address in line 26). On page 2, it appears that there is a contradiction between "devices" in line 27 and "the device" in lines 29-30. On page 5, lines 21-22, it appears that "an unauthorized hardware devices" is intended to read "an unauthorized hardware device" or "unauthorized hardware devices". On page 6, line 27, it appears that language is missing from the phrase "As is known, is a commonly used service".

Appropriate correction is required. Applicant's cooperation is requested in correcting any other errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "calculating the number of MAC addresses of the filtered ports to acquire a second MAC address list". This is generally unclear; specifically, it is not clear how calculating a number of addresses actually accomplishes acquiring a list. Further, the claim recites the limitation "subtracting the number of ports

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with more than two MAC addresses on the first MAC address list from the number of ports with more than two MAC addresses on the second MAC address list, thereby obtaining at least one unauthorized MAC address". First, it is not clear from the step of calculating (that allegedly acquires the second list) that there are any ports on the second list, and therefore it is not clear how the number of ports with more than two addresses on the second list is determined. Further, more generally, it is not explicitly clear from the claims or specification how subtracting the number of ports will obtain an unauthorized address. Additionally, it is not clear that subtracting the two numbers will always result in obtaining an unauthorized address, but the claim requires that. This renders the claim indefinite.

Claim 2 recites the limitation "the unauthorized hardware devices" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claims. Further, the limitation "the IP address of the unauthorized hardware devices" in lines 6-7 of the claim is generally unclear, because there were multiple IP addresses of the unauthorized devices obtained in lines 2-4 of the claim, and therefore, it is not clear to which of these addresses "the IP address" is intended to refer.

Claim 3 recites the limitations "the authorized hardware devices" and "the authorized network devices". There is insufficient antecedent basis for these limitations in the claims.

Claim 7 recites the limitation "calculating the number of MAC addresses of the ports of the network devices to acquire a second MAC address list". First, there is insufficient antecedent basis for the limitation "the network devices" in the claim.

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Further, this limitation is generally unclear; specifically, it is not clear how calculating a number of addresses actually accomplishes acquiring a list. Further, the claim recites the limitation “subtracting the number of ports with more than two MAC addresses on the first MAC address list from the number of ports with more than two MAC addresses on the second MAC address list, thereby obtaining at least one unauthorized MAC address”. First, it is not clear from the previously described calculating (that allegedly acquires the second list) that there are any ports on the second list, and therefore it is not clear how the number of ports with more than two addresses on the second list is determined. Further, more generally, it is not explicitly clear from the claims or specification how subtracting the number of ports will obtain an unauthorized address. Additionally, it is not clear that subtracting the two numbers will always result in obtaining an unauthorized address, but the claim requires that. This renders the claim indefinite.

Claim 8 recites the limitation “the unauthorized hardware devices” in line 2.

There is insufficient antecedent basis for this limitation in the claims.

Claim 12 recites the limitation “calculating the number of MAC addresses of the ports of the network devices to acquire a second MAC address list”. First, there is insufficient antecedent basis for the limitation “the network devices” in the claim. Further, this limitation is generally unclear; specifically, it is not clear how calculating a number of addresses actually accomplishes acquiring a list. Further, the claim recites the limitation “subtracting the number of ports with more than two MAC addresses on the first MAC address list from the number of ports with more than two MAC addresses

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on the second MAC address list, thereby obtaining at least one unauthorized MAC address". First, it is not clear from the step of calculating (that allegedly acquires the second list) that there are any ports on the second list, and therefore it is not clear how the number of ports with more than two addresses on the second list is determined. Further, more generally, it is not explicitly clear from the claims or specification how subtracting the number of ports will obtain an unauthorized address. Additionally, it is not clear that subtracting the two numbers will always result in obtaining an unauthorized address, but the claim requires that. This renders the claim indefinite.

Claim 13 recites the limitation "the unauthorized hardware devices" in line 3. There is insufficient antecedent basis for this limitation in the claims.

Claim 14 recites the limitation "the authorized network devices" in lines 2-3. There is insufficient antecedent basis for this limitation in the claims.

Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Symons et al, US Patent Application Publication 2003/0105881.

In reference to Claim 1, Symons discloses a method for detecting unauthorized hardware devices in a local area network, where the method includes scanning ports of a plurality of hardware devices to retrieve MAC addresses thereof (paragraphs 0008-0010, 0019); filtering an uplink port on each of the hardware devices to acquire a first MAC address list (paragraphs 0024-0026, 0034, 0036); acquiring a second MAC address list (paragraphs 0022, 0028-0030, 0034, 0036, 0055-0056); and subtracting (i.e. comparing and finding the difference between) the first MAC address list and the second MAC address list, thereby obtaining at least one unauthorized MAC address (paragraphs 0022, 0025-0026, 0048, 0058-0060, 0066).

In reference to Claim 2, Symons further discloses comparing the MAC addresses of unauthorized hardware devices with MAC addresses in a routing entry table to obtain Internet Protocol (IP) addresses of the unauthorized hardware devices (paragraphs 0037-0040, 0046, 0048) and acquiring user information for the unauthorized hardware devices by SNMP or WINS services in accordance with the IP addresses of the unauthorized hardware devices (paragraphs 0036, 0051).

In reference to Claim 3, Symons further discloses that the ports of the hardware devices are recursively scanned by an authorized network device (paragraphs 0008-0010, 0019, 0023, 0026).

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In reference to Claim 4, Symons further discloses that MAC addresses of authorized hardware devices are stored in a database (paragraph 0028).

In reference to Claim 5, Symons further discloses that the ports of authorized network devices are scanned by simple network management protocol (paragraphs 0036, 0051).

In reference to Claim 6, Symons further discloses that a simple network management protocol is used (paragraphs 0036, 0051).

Claims 7-11 are directed to systems corresponding substantially to the methods of Claims 1-5, and are rejected by a similar rationale.

Similarly, Claims 12-16 are directed to a software implementation of the methods of Claims 1-5, and are also rejected by a similar rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZAD
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Matthew B. Smithers
MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137